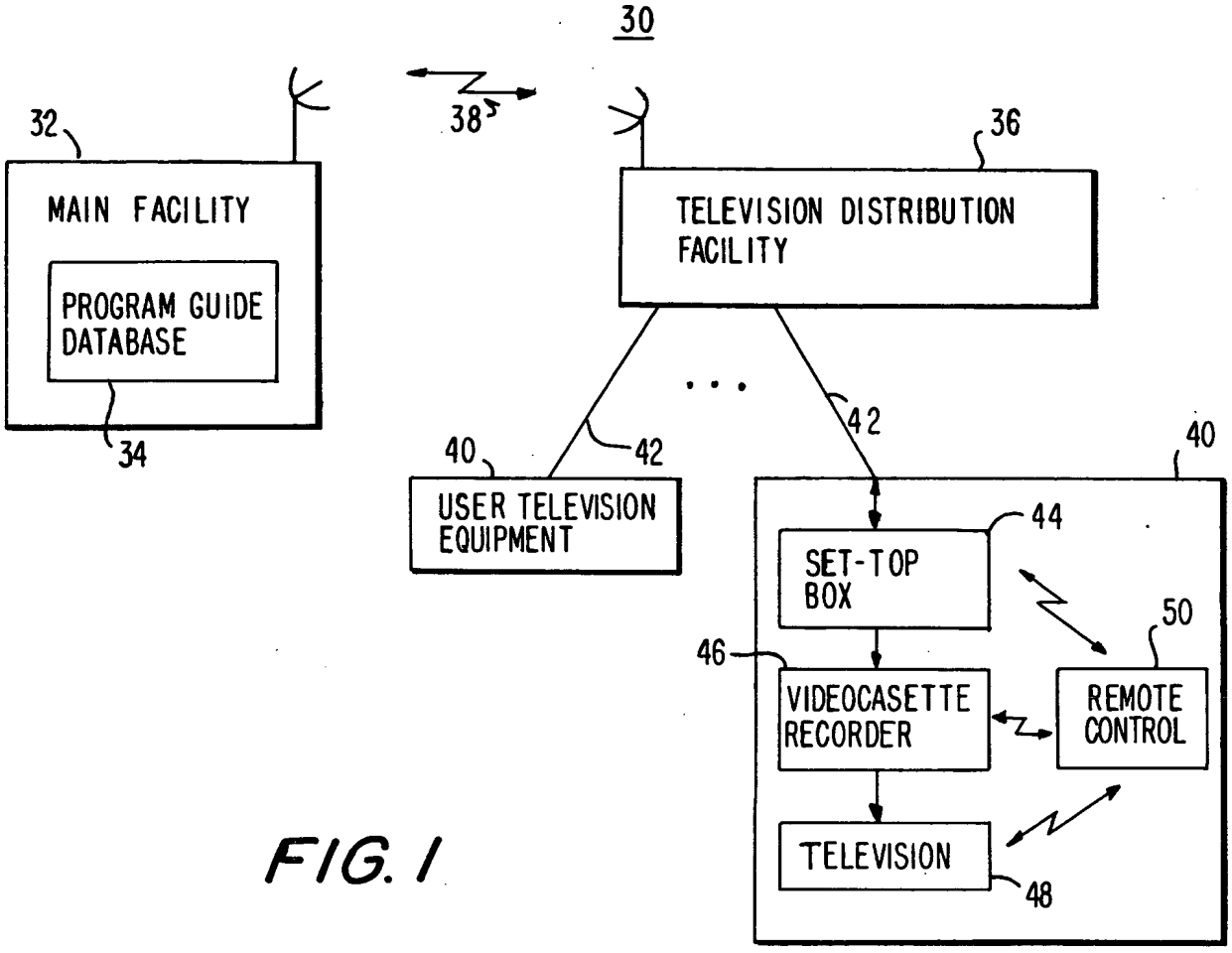

30
32
38
36
MAIN FACILITY
PROGRAM GUIDE DATABASE
34
TELEVISION DISTRIBUTION FACILITY
42
40
42
40
USER TELEVISION EQUIPMENT
44
SET-TOP BOX
50
46
VIDEOCASETTE RECORDER
REMOTE CONTROL
TELEVISION
48

FIG. 1

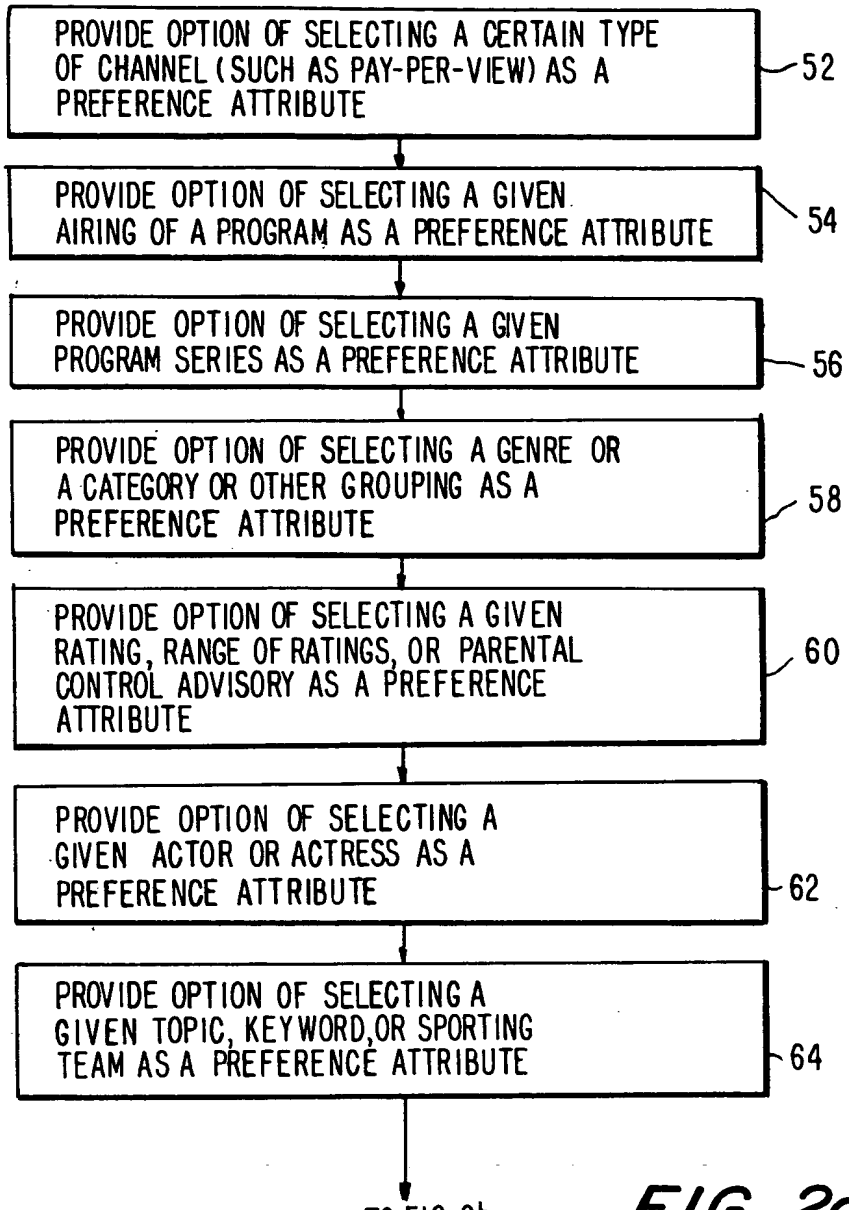

PROVIDE OPTION OF SELECTING A CERTAIN TYPE OF CHANNEL (SUCH AS PAY-PER-VIEW) AS A PREFERENCE ATTRIBUTE
52
PROVIDE OPTION OF SELECTING A GIVEN AIRING OF A PROGRAM AS A PREFERENCE ATTRIBUTE
54
PROVIDE OPTION OF SELECTING A GIVEN PROGRAM SERIES AS A PREFERENCE ATTRIBUTE
56
PROVIDE OPTION OF SELECTING A GENRE OR A CATEGORY OR OTHER GROUPING AS A PREFERENCE ATTRIBUTE
58
PROVIDE OPTION OF SELECTING A GIVEN RATING, RANGE OF RATINGS, OR PARENTAL CONTROL ADVISORY AS A PREFERENCE ATTRIBUTE
60
PROVIDE OPTION OF SELECTING A GIVEN ACTOR OR ACTRESS AS A PREFERENCE ATTRIBUTE
62
PROVIDE OPTION OF SELECTING A GIVEN TOPIC, KEYWORD, OR SPORTING TEAM AS A PREFERENCE ATTRIBUTE
64
TO FIG. 2b

FIG. 2a

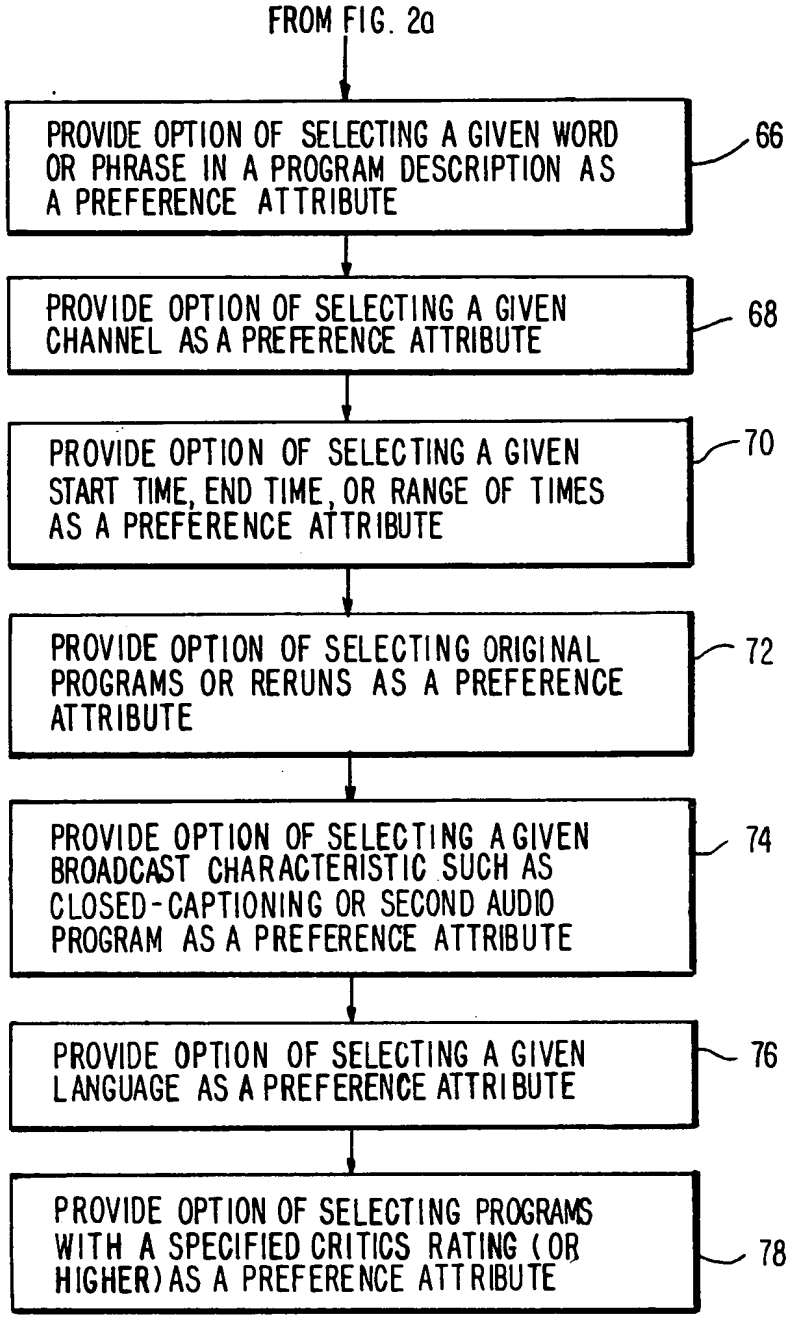

FROM FIG. 2a
PROVIDE OPTION OF SELECTING A GIVEN WORD OR PHRASE IN A PROGRAM DESCRIPTION AS A PREFERENCE ATTRIBUTE
66
PROVIDE OPTION OF SELECTING A GIVEN CHANNEL AS A PREFERENCE ATTRIBUTE
68
PROVIDE OPTION OF SELECTING A GIVEN START TIME, END TIME, OR RANGE OF TIMES AS A PREFERENCE ATTRIBUTE
70
PROVIDE OPTION OF SELECTING ORIGINAL PROGRAMS OR RERUNS AS A PREFERENCE ATTRIBUTE
72
PROVIDE OPTION OF SELECTING A GIVEN BROADCAST CHARACTERISTIC SUCH AS CLOSED-CAPTIONING OR SECOND AUDIO PROGRAM AS A PREFERENCE ATTRIBUTE
74
PROVIDE OPTION OF SELECTING A GIVEN LANGUAGE AS A PREFERENCE ATTRIBUTE
76
PROVIDE OPTION OF SELECTING PROGRAMS WITH A SPECIFIED CRITICS RATING (OR HIGHER) AS A PREFERENCE ATTRIBUTE
78

FIG. 2b

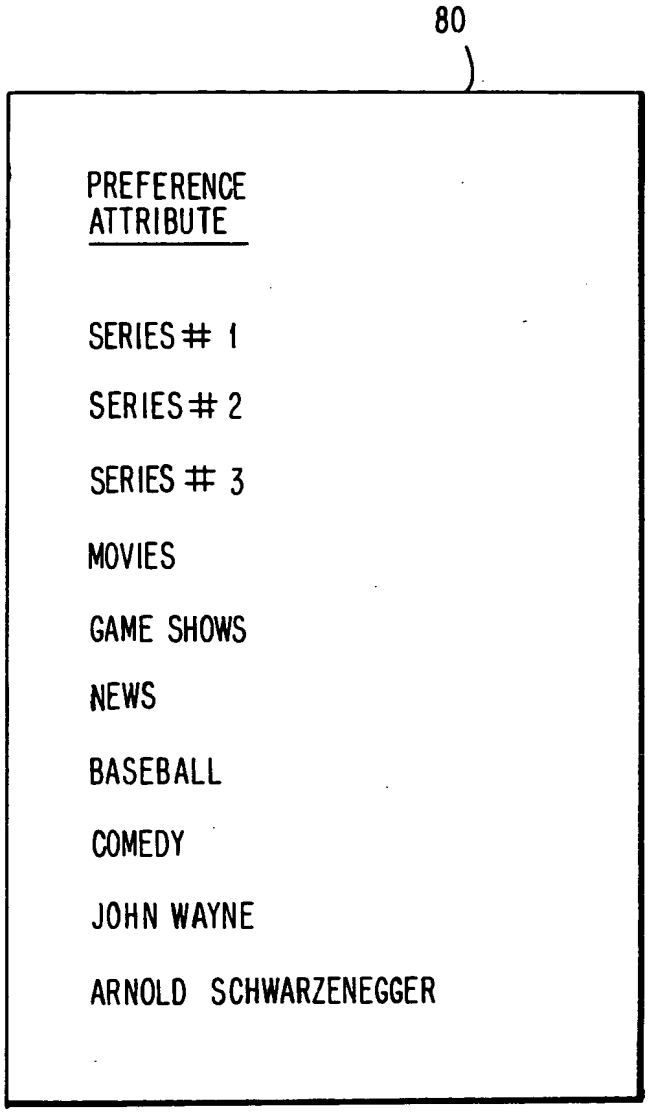

80
PREFERENCE ATTRIBUTE
SERIES # 1
SERIES # 2
SERIES # 3
MOVIES
GAME SHOWS
NEWS
BASEBALL
COMEDY
JOHN WAYNE
ARNOLD SCHWARZENEGGER

FIG. 3

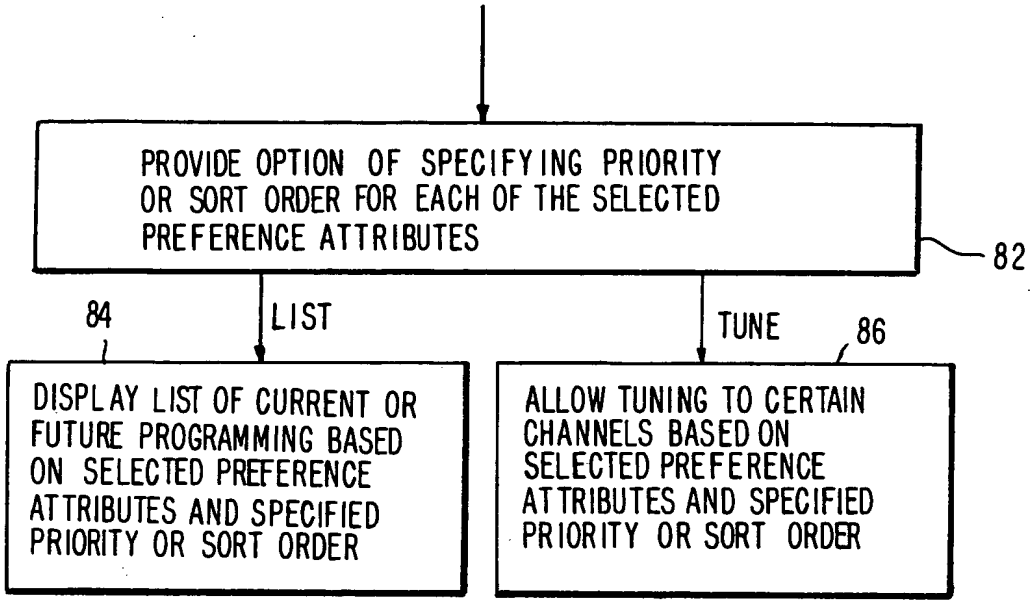

PROVIDE OPTION OF SPECIFYING PRIORITY OR SORT ORDER FOR EACH OF THE SELECTED PREFERENCE ATTRIBUTES
82
84
LIST
TUNE
86
DISPLAY LIST OF CURRENT OR FUTURE PROGRAMMING BASED ON SELECTED PREFERENCE ATTRIBUTES AND SPECIFIED PRIORITY OR SORT ORDER
ALLOW TUNING TO CERTAIN CHANNELS BASED ON SELECTED PREFERENCE ATTRIBUTES AND SPECIFIED PRIORITY OR SORT ORDER

FIG. 4

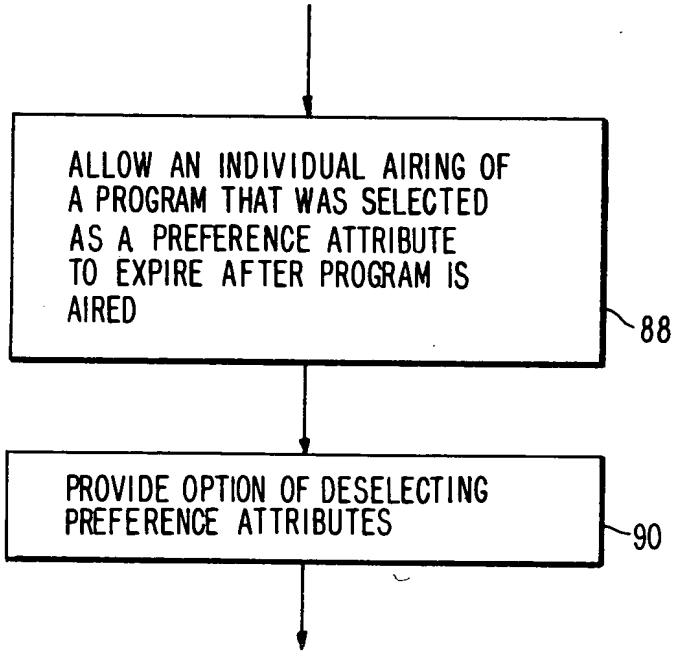

ALLOW AN INDIVIDUAL AIRING OF A PROGRAM THAT WAS SELECTED AS A PREFERENCE ATTRIBUTE TO EXPIRE AFTER PROGRAM IS AIRED
88
PROVIDE OPTION OF DESELECTING PREFERENCE ATTRIBUTES
90

FIG. 5

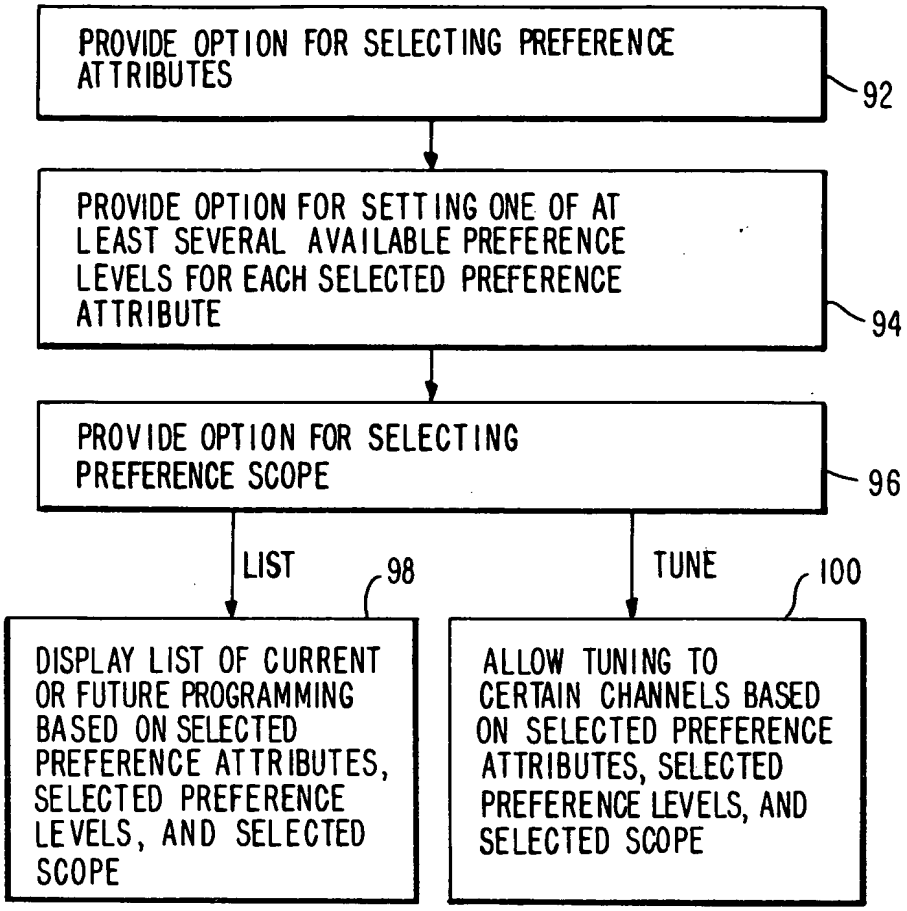

PROVIDE OPTION FOR SELECTING PREFERENCE ATTRIBUTES
92
PROVIDE OPTION FOR SETTING ONE OF AT LEAST SEVERAL AVAILABLE PREFERENCE LEVELS FOR EACH SELECTED PREFERENCE ATTRIBUTE
94
PROVIDE OPTION FOR SELECTING PREFERENCE SCOPE
96
LIST
98
TUNE
100
DISPLAY LIST OF CURRENT OR FUTURE PROGRAMMING BASED ON SELECTED PREFERENCE ATTRIBUTES, SELECTED PREFERENCE LEVELS, AND SELECTED SCOPE
ALLOW TUNING TO CERTAIN CHANNELS BASED ON SELECTED PREFERENCE ATTRIBUTES, SELECTED PREFERENCE LEVELS, AND SELECTED SCOPE

FIG. 6

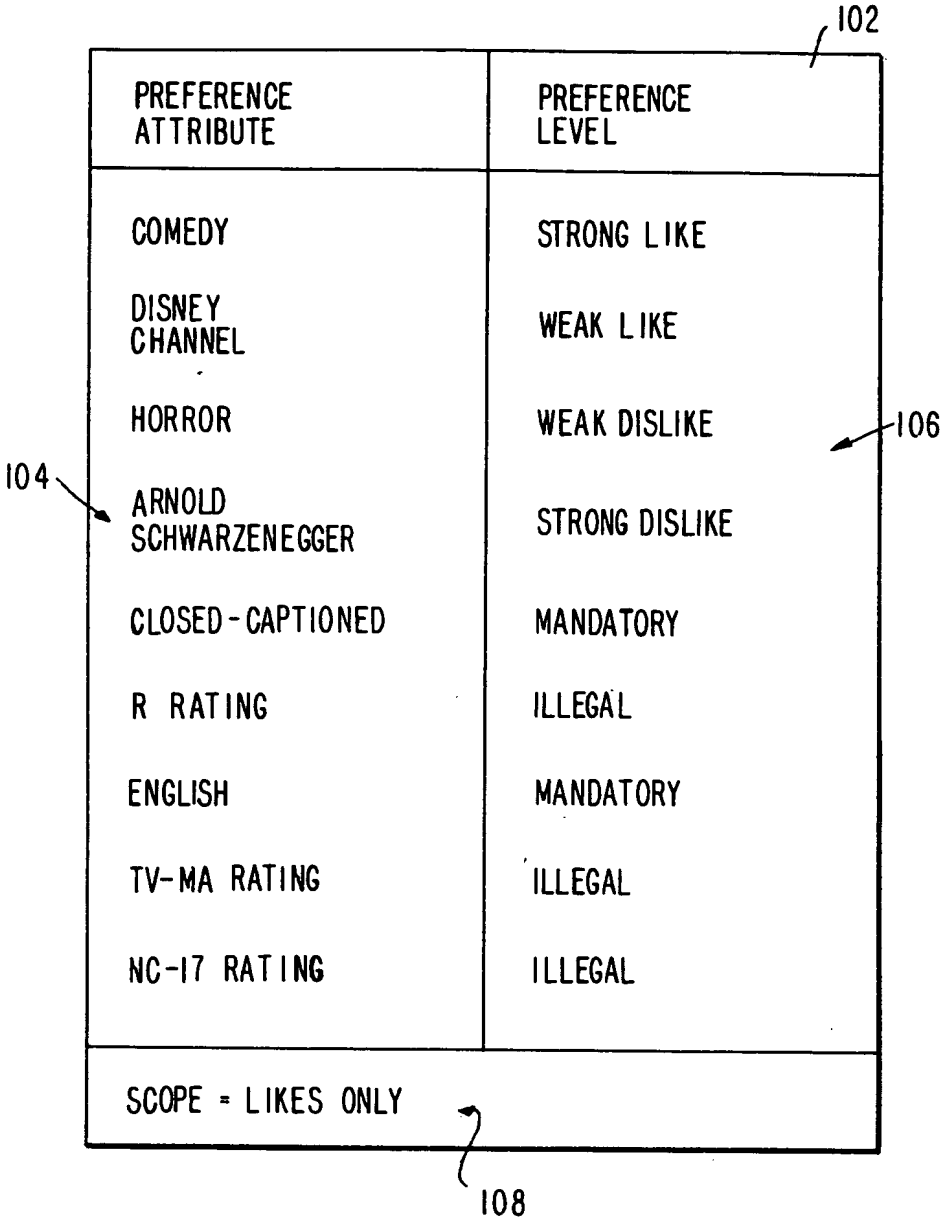
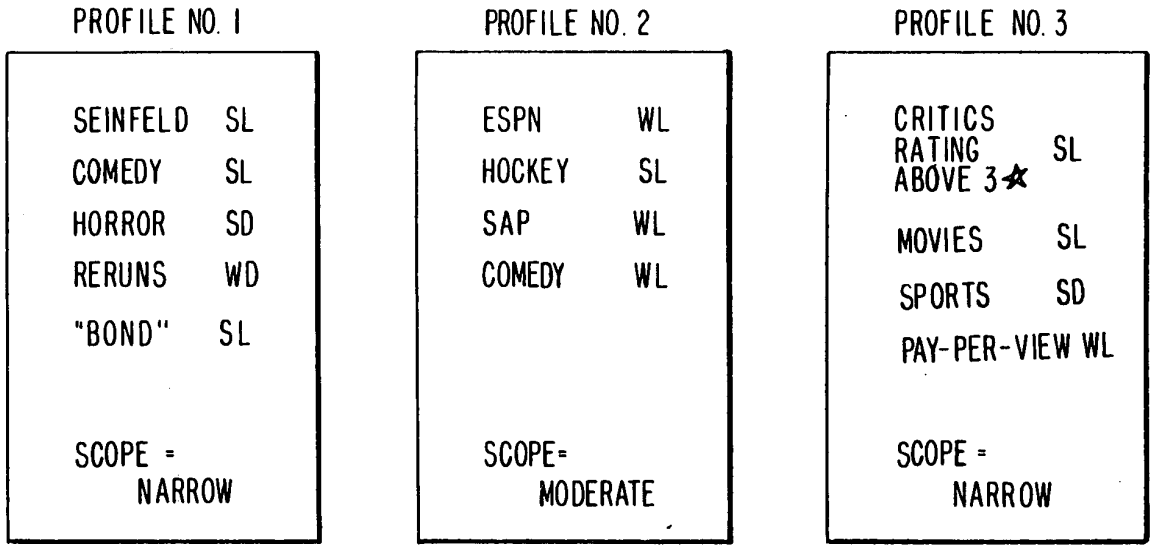

102
PREFERENCE ATTRIBUTE
PREFERENCE LEVEL
COMEDY
STRONG LIKE
DISNEY CHANNEL
WEAK LIKE
HORROR
WEAK DISLIKE
106
104
ARNOLD SCHWARZENEGGER
STRONG DISLIKE
CLOSED-CAPTIONED
MANDATORY
R RATING
ILLEGAL
ENGLISH
MANDATORY
TV-MA RATING
ILLEGAL
NC-17 RATING
ILLEGAL
SCOPE = LIKES ONLY
108

FIG. 7

FIG. 8

NARROW SCOPE	MODERATE SCOPE	WIDE SCOPE	TITLE	GENRE	CC	RATING	MANDATORY+ NOT ILLEGAL	HIGHEST LEVEL
Y	Y	Y	SEINFELD	COMEDY	Y	TV-PG	Y	SL
N	N	Y	THE SHINING	HORROR	Y	PG-13	Y	WD
N	N	N	DANTE'S PEAK	COMEDY	Y	R	N	SL
N	N	N	NIGHT AT THE OPERA	COMEDY	N	G	N	SL
N	Y	Y	ER	DRAMA	Y	TV-PG	Y	NEUTRAL
N	N	Y	TERMINATOR	ACTION HORROR	Y	PG-13	Y	SD
Y	Y	Y	MY STEPMOTHER IS AN ALIEN	COMEDY HORROR	Y	PG-13	Y	SL+WD

FIG. 9


PROFILE NO. 1
SEINFELD SL
COMEDY SL
HORROR SD
RERUNS WD
"BOND" SL
SCOPE = NARROW
PROFILE NO. 2
ESPN WL
HOCKEY SL
SAP WL
COMEDY WL
SCOPE= MODERATE
PROFILE NO. 3
CRITICS RATING ABOVE 3★ SL
MOVIES SL
SPORTS SD
PAY-PER-VIEW WL
SCOPE = NARROW

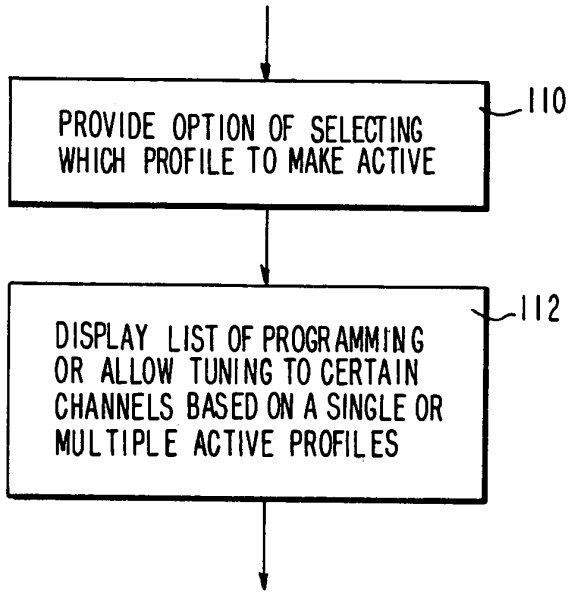

PROVIDE OPTION OF SELECTING WHICH PROFILE TO MAKE ACTIVE
110
DISPLAY LIST OF PROGRAMMING OR ALLOW TUNING TO CERTAIN CHANNELS BASED ON A SINGLE OR MULTIPLE ACTIVE PROFILES
112

FIG. 10

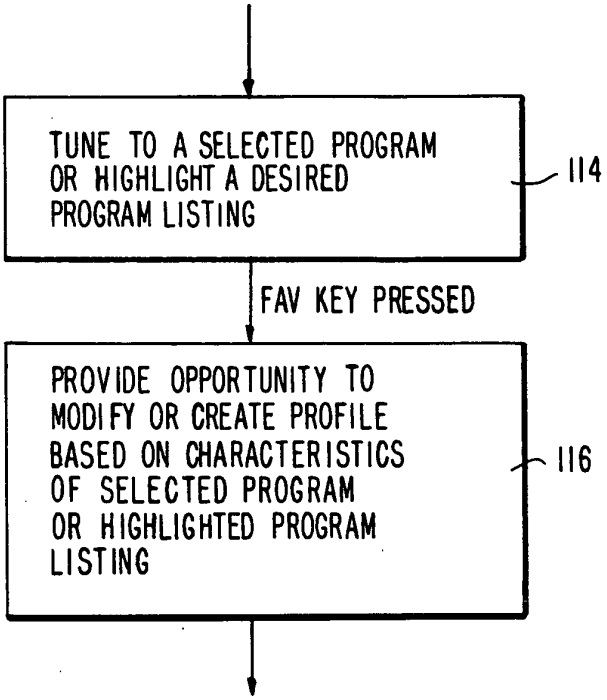

TUNE TO A SELECTED PROGRAM OR HIGHLIGHT A DESIRED PROGRAM LISTING
114
FAV KEY PRESSED
PROVIDE OPPORTUNITY TO MODIFY OR CREATE PROFILE BASED ON CHARACTERISTICS OF SELECTED PROGRAM OR HIGHLIGHTED PROGRAM LISTING
116

FIG. 11

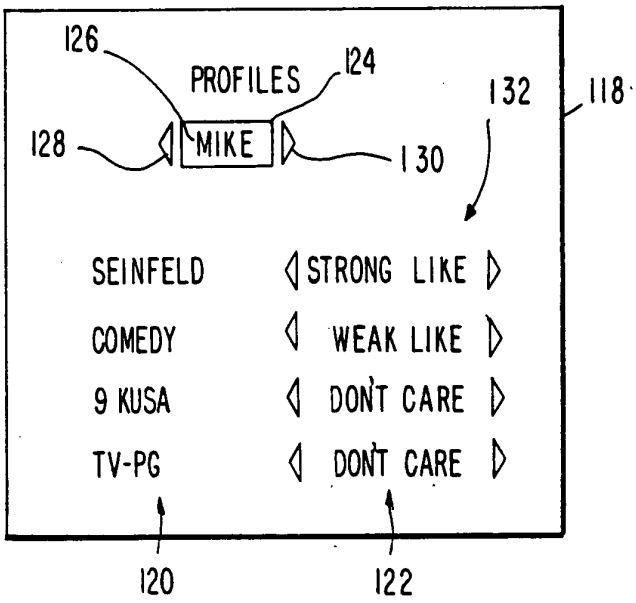

126
PROFILES
124
132
118
128
MIKE
130
SEINFELD
STRONG LIKE
COMEDY
WEAK LIKE
9 KUSA
DON'T CARE
TV-PG
DON'T CARE
120
122

FIG. 12

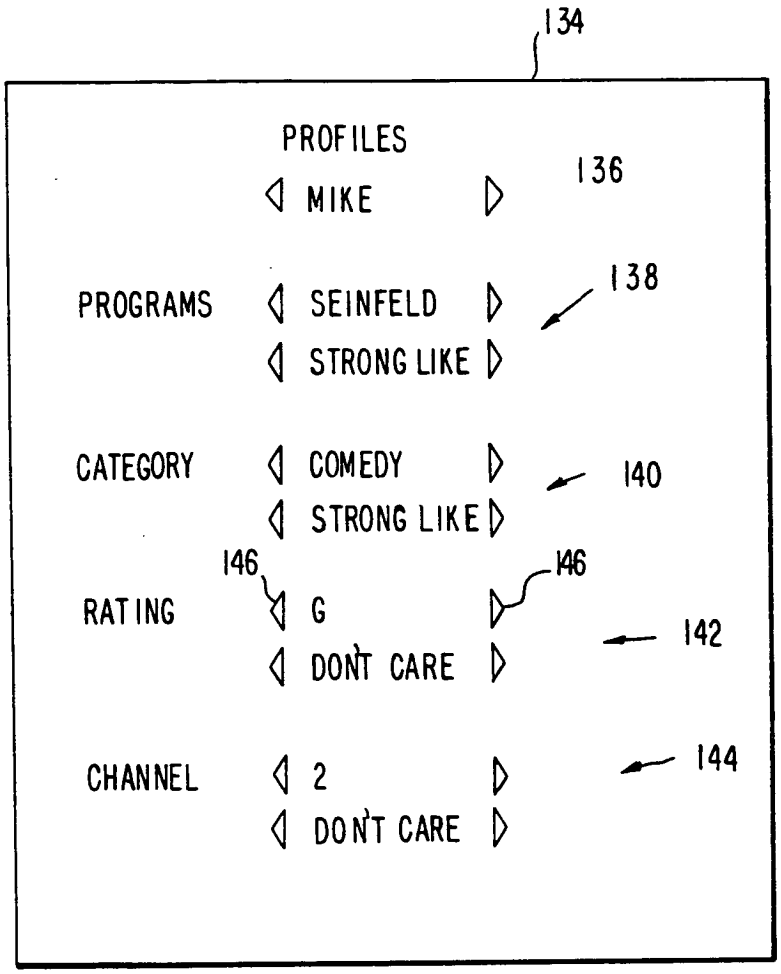

134
PROFILES
136
MIKE
PROGRAMS
SEINFELD
138
STRONG LIKE
CATEGORY
COMEDY
140
STRONG LIKE
146
146
RATING
G
142
DONT CARE
CHANNEL
2
144
DONT CARE

FIG. 13

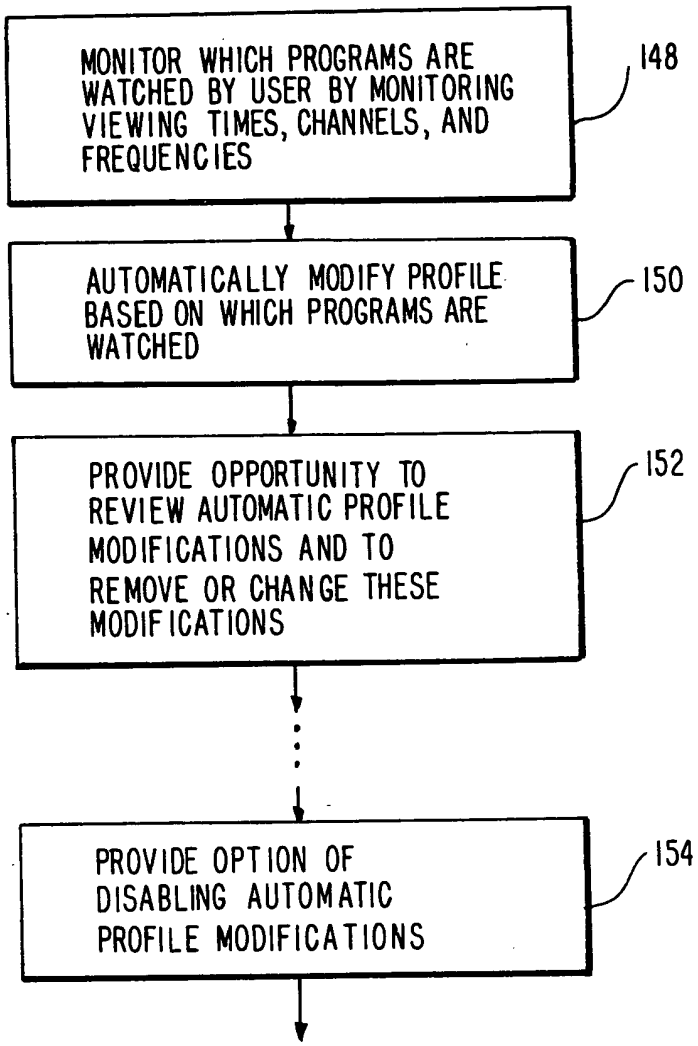

MONITOR WHICH PROGRAMS ARE WATCHED BY USER BY MONITORING VIEWING TIMES, CHANNELS, AND FREQUENCIES
148
AUTOMATICALLY MODIFY PROFILE BASED ON WHICH PROGRAMS ARE WATCHED
150
PROVIDE OPPORTUNITY TO REVIEW AUTOMATIC PROFILE MODIFICATIONS AND TO REMOVE OR CHANGE THESE MODIFICATIONS
152
PROVIDE OPTION OF DISABLING AUTOMATIC PROFILE MODIFICATIONS
154

FIG. 14

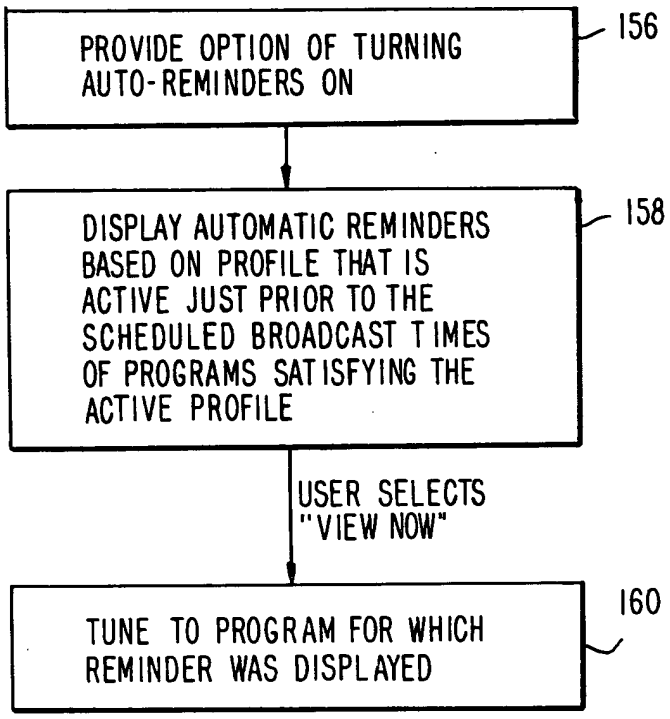

PROVIDE OPTION OF TURNING AUTO-REMINDERS ON
156
DISPLAY AUTOMATIC REMINDERS BASED ON PROFILE THAT IS ACTIVE JUST PRIOR TO THE SCHEDULED BROADCAST TIMES OF PROGRAMS SATISFYING THE ACTIVE PROFILE
158
USER SELECTS "VIEW NOW"
TUNE TO PROGRAM FOR WHICH REMINDER WAS DISPLAYED
160

FIG. 15

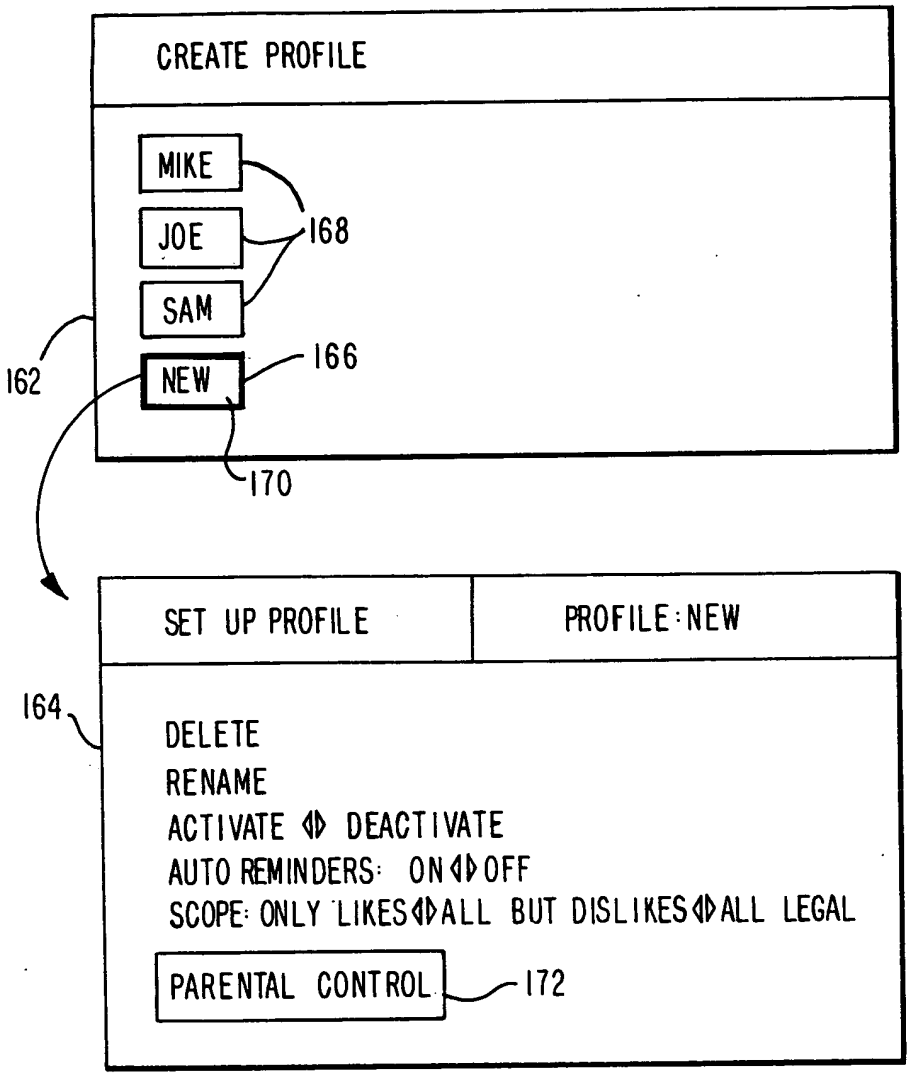

CREATE PROFILE
MIKE
JOE
SAM
NEW
168
162
166
170
SET UP PROFILE
PROFILE: NEW
164
DELETE
RENAME
ACTIVATE ⇕ DEACTIVATE
AUTO REMINDERS: ON ⇕ OFF
SCOPE: ONLY LIKES ⇕ ALL BUT DISLIKES ⇕ ALL LEGAL
PARENTAL CONTROL
172

FIG. 16

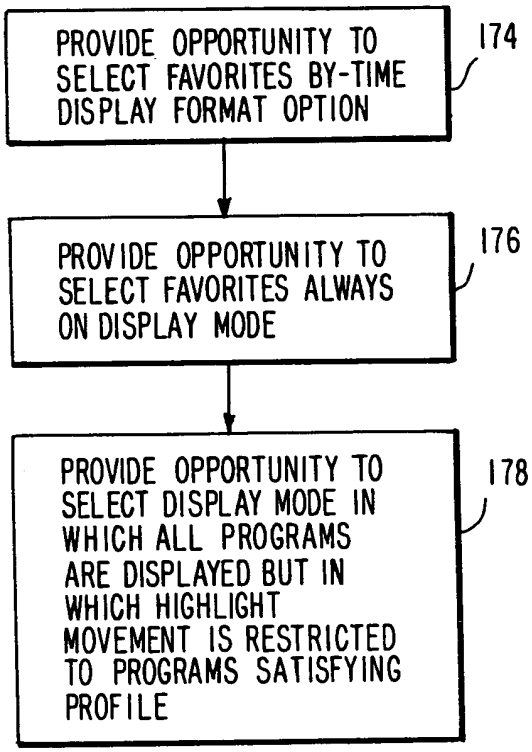

PROVIDE OPPORTUNITY TO SELECT FAVORITES BY-TIME DISPLAY FORMAT OPTION
174
PROVIDE OPPORTUNITY TO SELECT FAVORITES ALWAYS ON DISPLAY MODE
176
PROVIDE OPPORTUNITY TO SELECT DISPLAY MODE IN WHICH ALL PROGRAMS ARE DISPLAYED BUT IN WHICH HIGHLIGHT MOVEMENT IS RESTRICTED TO PROGRAMS SATISFYING PROFILE
178

FIG. 17

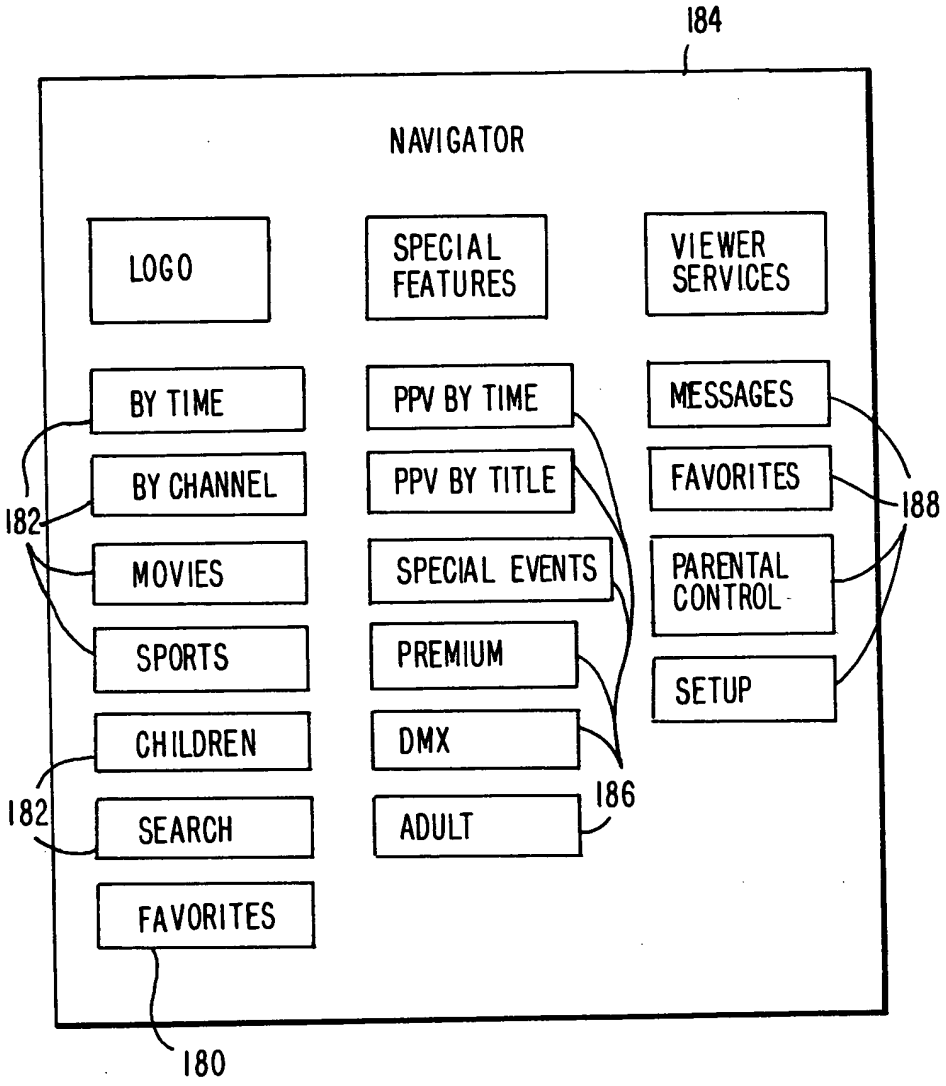

184
NAVIGATOR
LOGO
SPECIAL FEATURES
VIEWER SERVICES
BY TIME
BY CHANNEL
MOVIES
SPORTS
CHILDREN
SEARCH
FAVORITES
PPV BY TIME
PPV BY TITLE
SPECIAL EVENTS
PREMIUM
DMX
ADULT
MESSAGES
FAVORITES
PARENTAL CONTROL
SETUP
182
182
186
188
180

FIG. 18

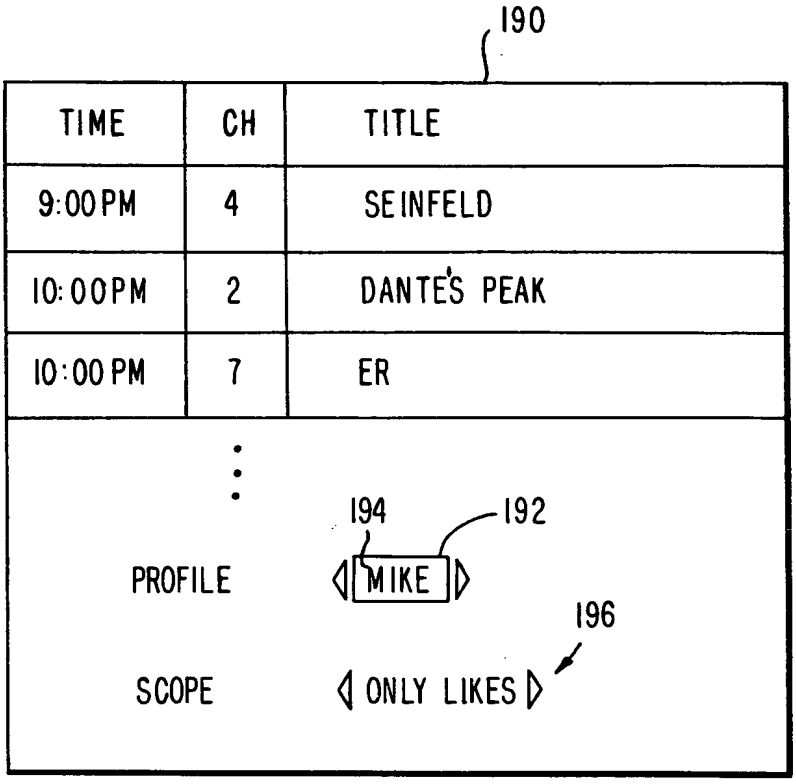

190
TIME
CH
TITLE
9:00PM
4
SEINFELD
10:00PM
2
DANTE'S PEAK
10:00PM
7
ER
194
192
PROFILE
MIKE
196
SCOPE
ONLY LIKES

FIG. 19

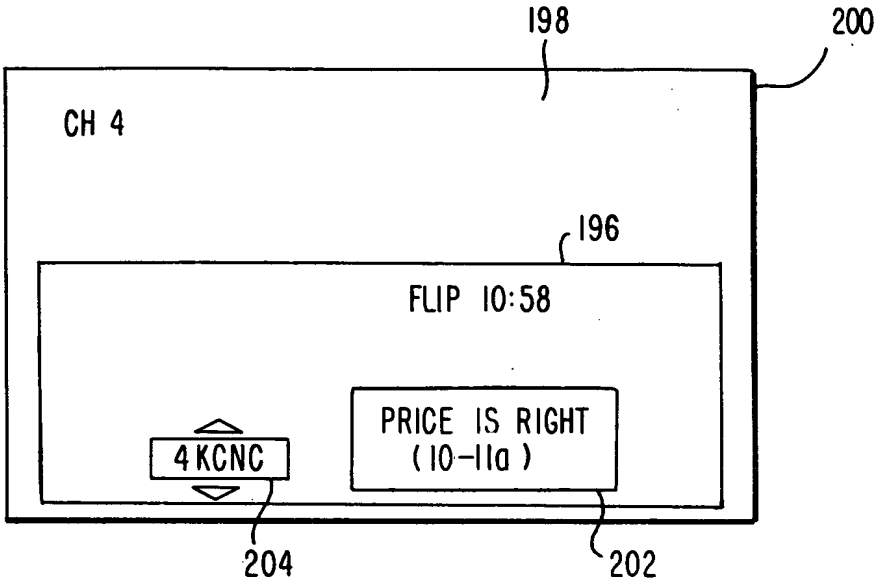


FIG. 20

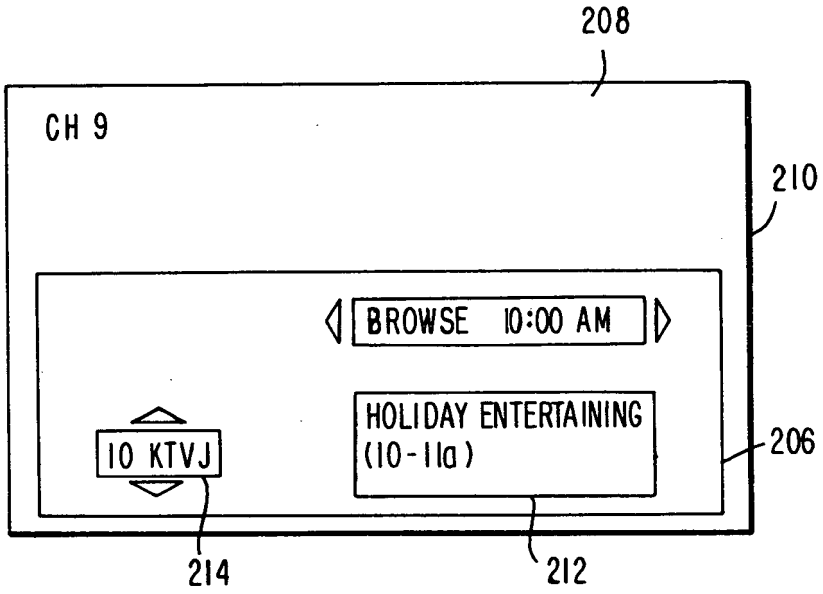

208
CH 9
210
BROWSE 10:00 AM
HOLIDAY ENTERTAINING
(10-11a)
206
10 KTVJ
214
212

FIG. 21

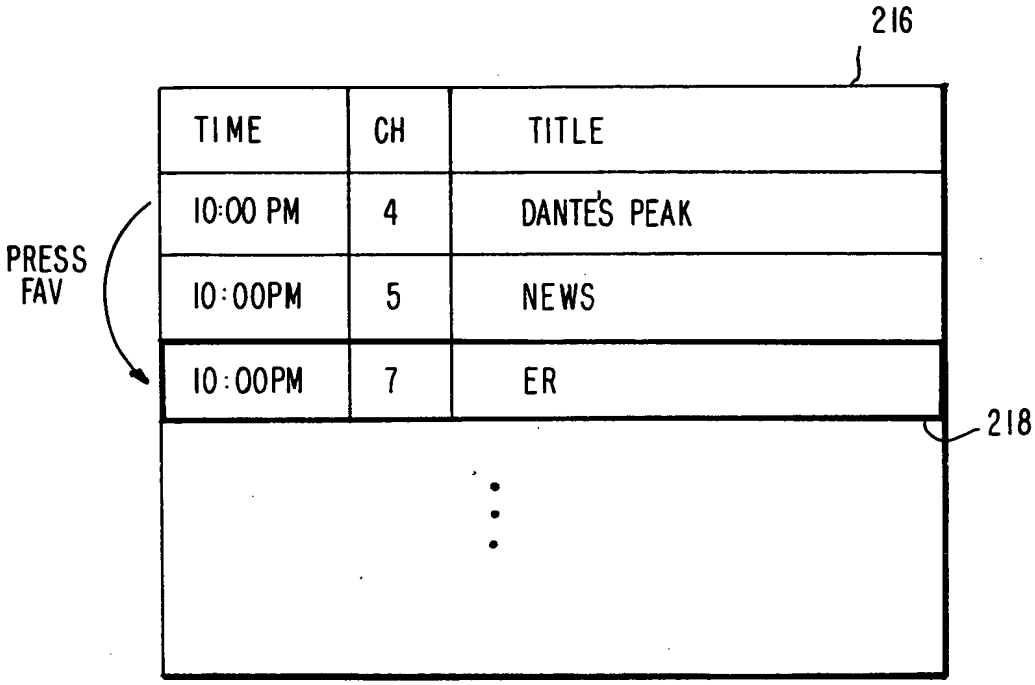

216
TIME
CH
TITLE
10:00 PM
4
DANTE'S PEAK
10:00PM
5
NEWS
10:00PM
7
ER
218
PRESS
FAV

FIG. 22

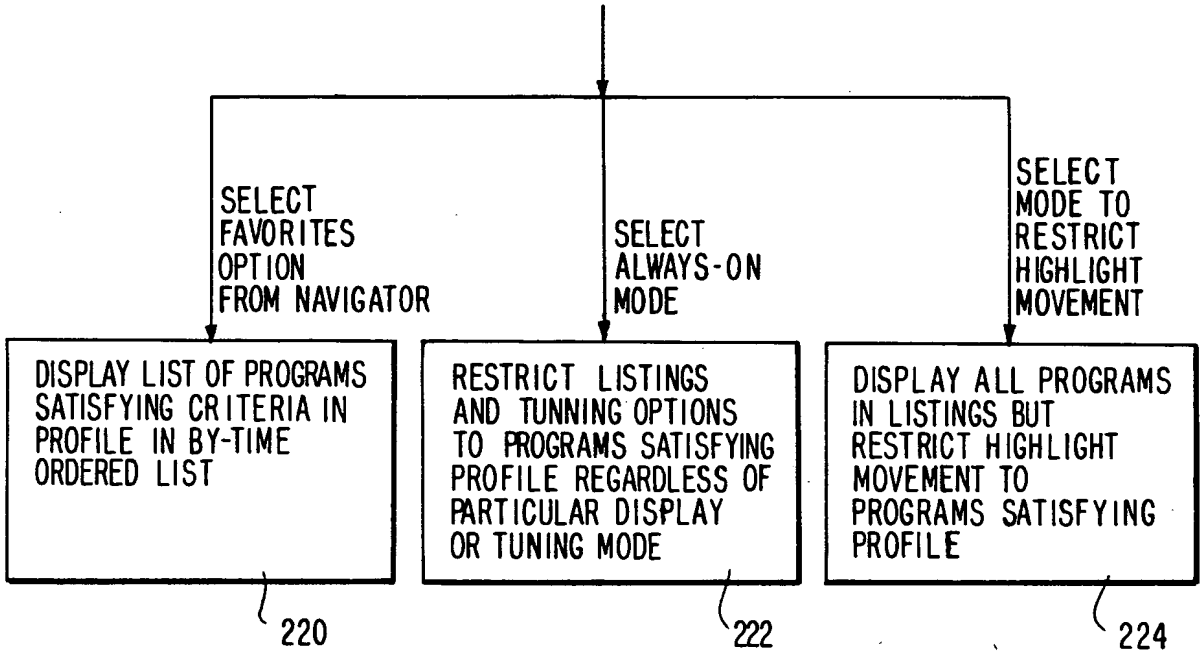

SELECT FAVORITES OPTION FROM NAVIGATOR
SELECT ALWAYS-ON MODE
SELECT MODE TO RESTRICT HIGHLIGHT MOVEMENT
DISPLAY LIST OF PROGRAMS SATISFYING CRITERIA IN PROFILE IN BY-TIME ORDERED LIST
RESTRICT LISTINGS AND TUNNING OPTIONS TO PROGRAMS SATISFYING PROFILE REGARDLESS OF PARTICULAR DISPLAY OR TUNING MODE
DISPLAY ALL PROGRAMS IN LISTINGS BUT RESTRICT HIGHLIGHT MOVEMENT TO PROGRAMS SATISFYING PROFILE
220
222
224

FIG. 23

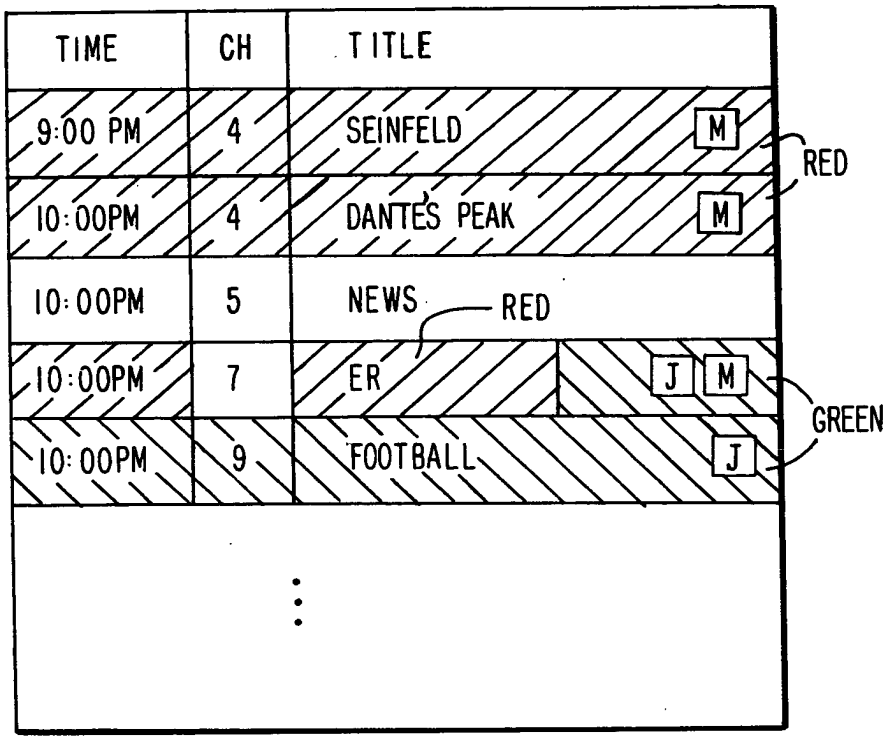

TIME
CH
TITLE
9:00 PM
4
SEINFELD
M
RED
10:00PM
4
DANTES PEAK
M
10:00PM
5
NEWS
RED
10:00PM
7
ER
J
M
GREEN
10:00PM
9
FOOTBALL
J

FIG. 24

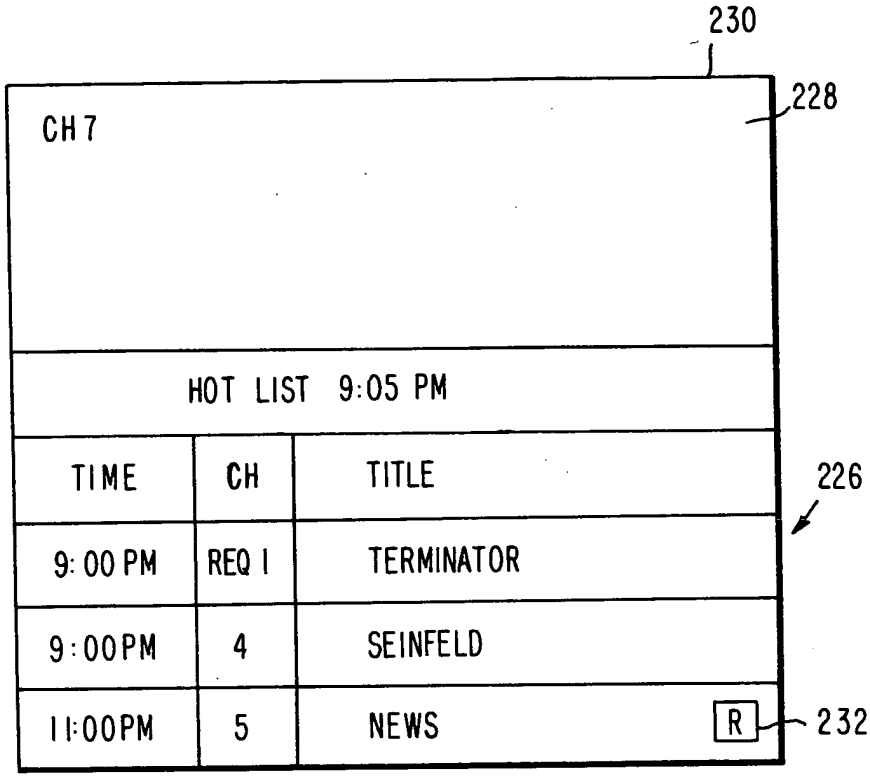

230
228
CH 7
HOT LIST 9:05 PM
TIME
CH
TITLE
226
9:00 PM
REQ 1
TERMINATOR
9:00PM
4
SEINFELD
11:00PM
5
NEWS
R
232

FIG. 25

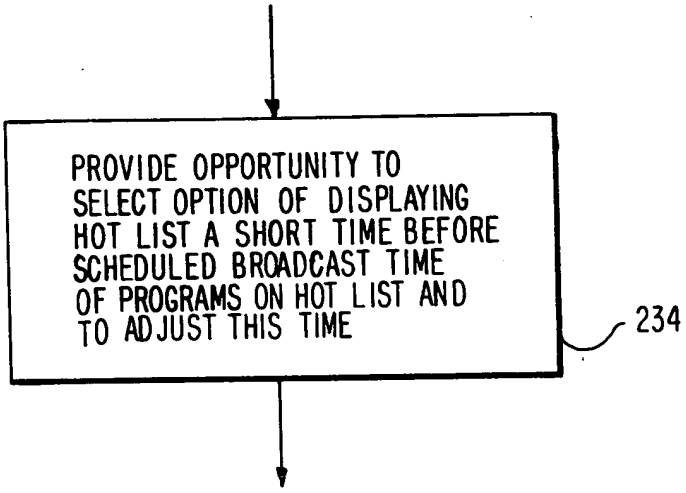

PROVIDE OPPORTUNITY TO SELECT OPTION OF DISPLAYING HOT LIST A SHORT TIME BEFORE SCHEDULED BROADCAST TIME OF PROGRAMS ON HOT LIST AND TO ADJUST THIS TIME
234

FIG. 26

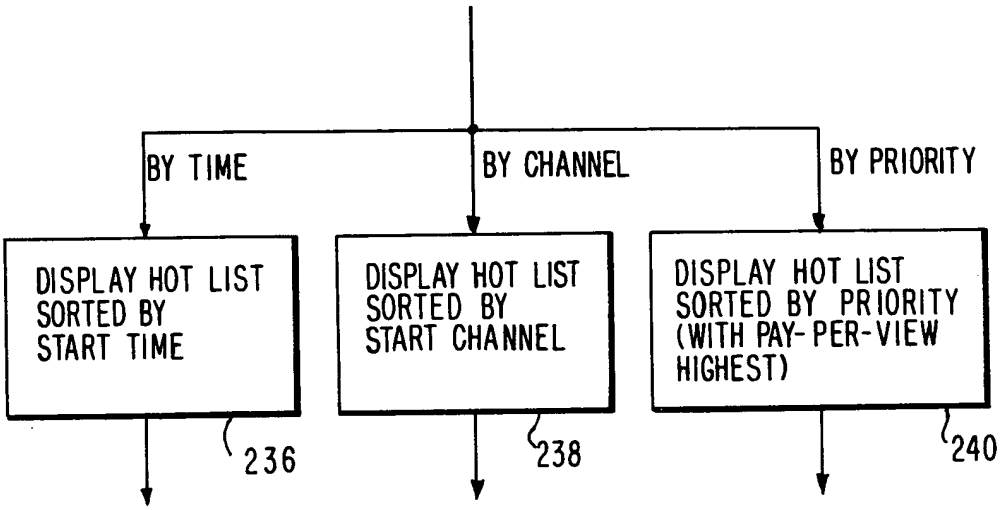

BY TIME
BY CHANNEL
BY PRIORITY
DISPLAY HOT LIST SORTED BY START TIME
DISPLAY HOT LIST SORTED BY START CHANNEL
DISPLAY HOT LIST SORTED BY PRIORITY (WITH PAY-PER-VIEW HIGHEST)
236
238
240

FIG. 27

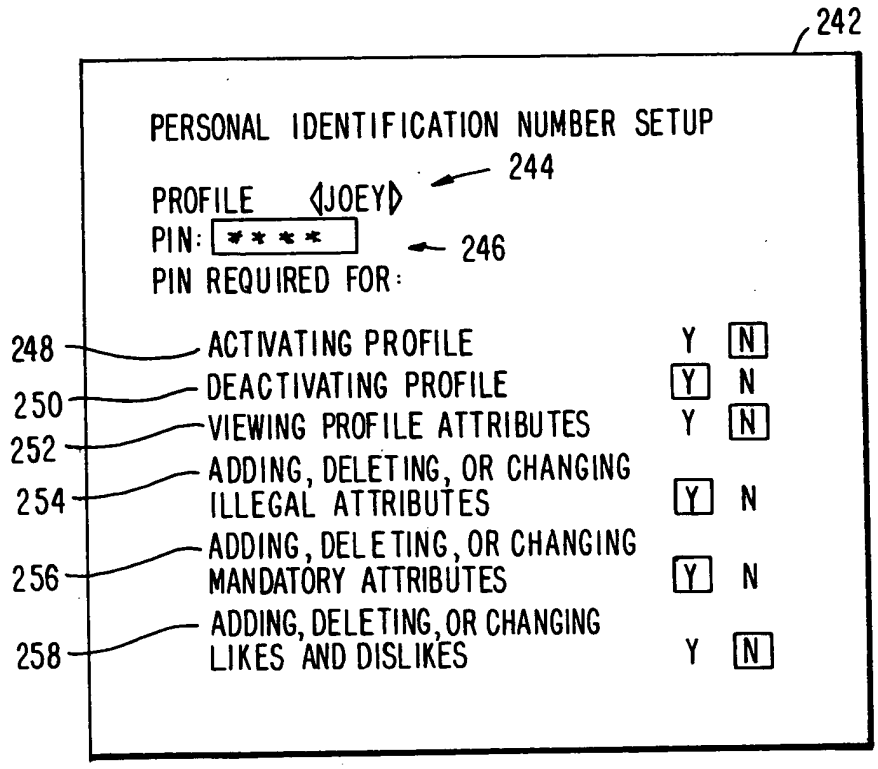

242
PERSONAL IDENTIFICATION NUMBER SETUP
244
PROFILE ⟨JOEY⟩
PIN: ****
246
PIN REQUIRED FOR:
248
ACTIVATING PROFILE Y [N]
250
DEACTIVATING PROFILE [Y] N
252
VIEWING PROFILE ATTRIBUTES Y [N]
254
ADDING, DELETING, OR CHANGING ILLEGAL ATTRIBUTES [Y] N
256
ADDING, DELETING, OR CHANGING MANDATORY ATTRIBUTES [Y] N
258
ADDING, DELETING, OR CHANGING LIKES AND DISLIKES Y [N]

FIG. 28

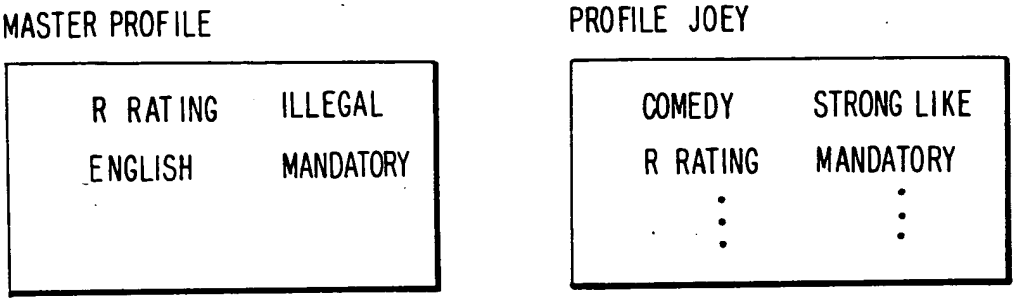

MASTER PROFILE
R RATING
ILLEGAL
ENGLISH
MANDATORY
PROFILE JOEY
COMEDY
STRONG LIKE
R RATING
MANDATORY

FIG. 29

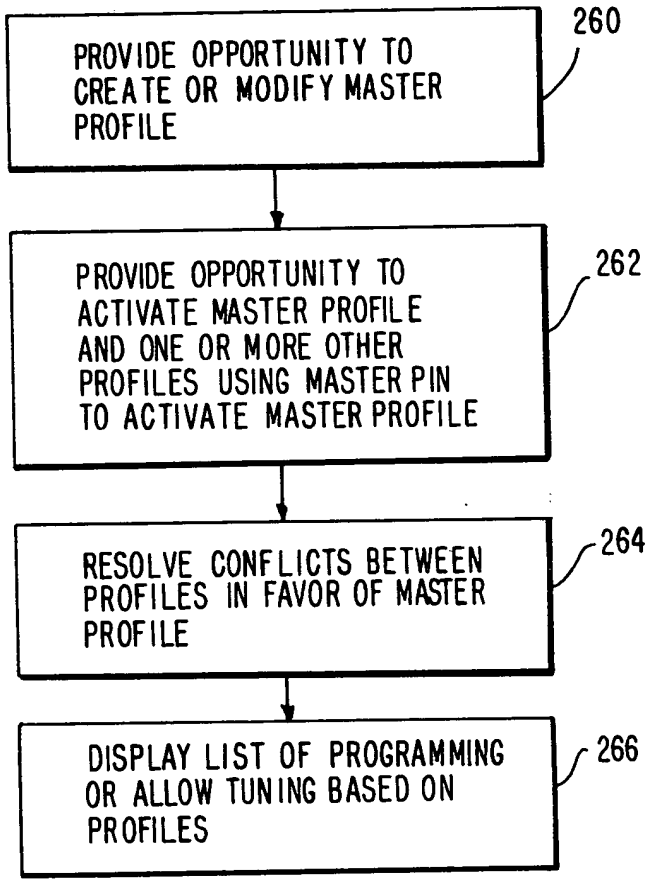
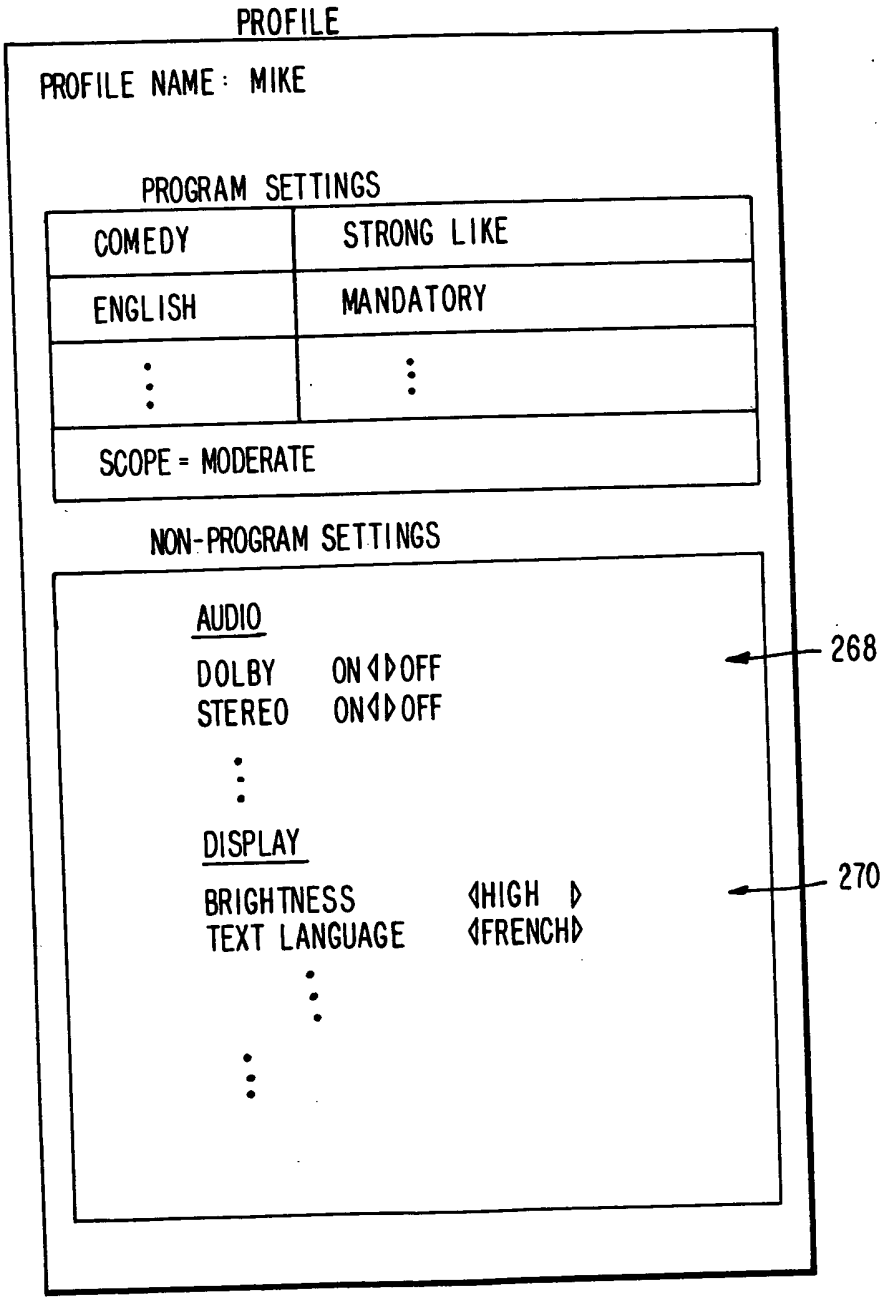

PROVIDE OPPORTUNITY TO CREATE OR MODIFY MASTER PROFILE
260
PROVIDE OPPORTUNITY TO ACTIVATE MASTER PROFILE AND ONE OR MORE OTHER PROFILES USING MASTER PIN TO ACTIVATE MASTER PROFILE
262
RESOLVE CONFLICTS BETWEEN PROFILES IN FAVOR OF MASTER PROFILE
264
DISPLAY LIST OF PROGRAMMING OR ALLOW TUNING BASED ON PROFILES
266

FIG. 30

FIG. 31


PROFILE
PROFILE NAME: MIKE
PROGRAM SETTINGS
COMEDY
STRONG LIKE
ENGLISH
MANDATORY
SCOPE = MODERATE
NON-PROGRAM SETTINGS
AUDIO
DOLBY ON◁▷OFF
STEREO ON◁▷OFF
DISPLAY
BRIGHTNESS ◁HIGH ▷
TEXT LANGUAGE ◁FRENCH▷
268
270

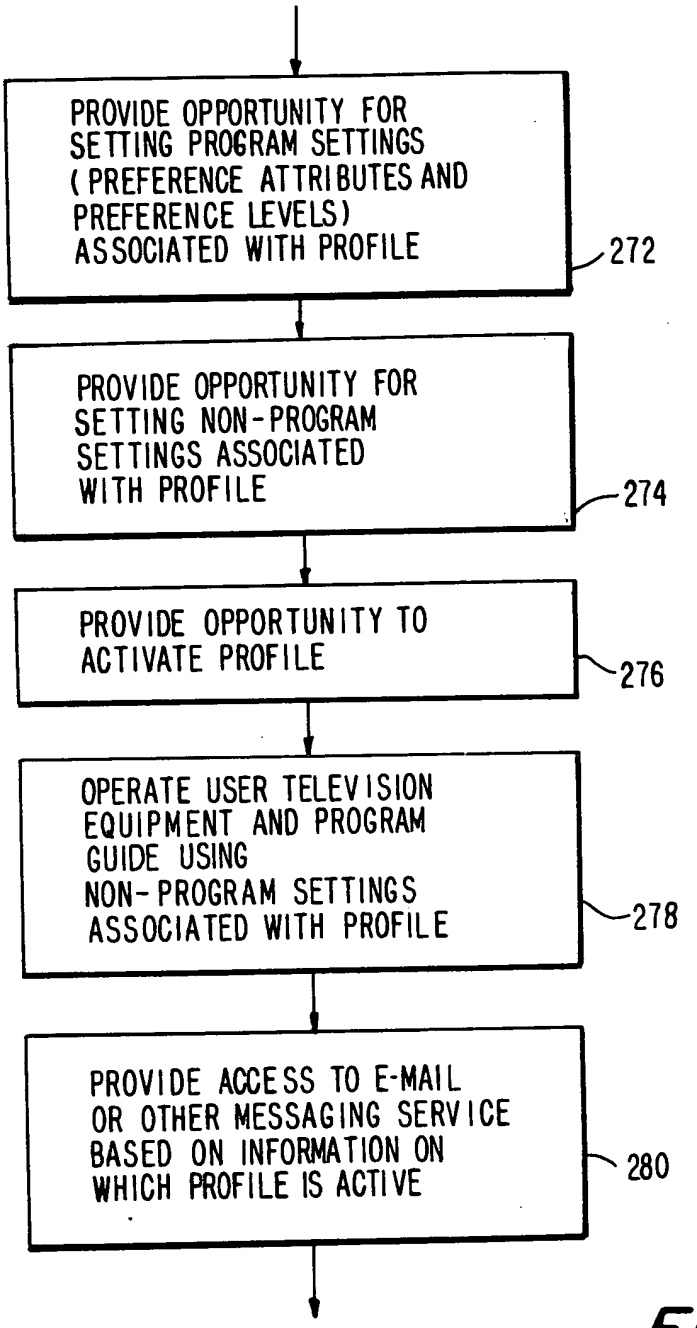

PROVIDE OPPORTUNITY FOR SETTING PROGRAM SETTINGS (PREFERENCE ATTRIBUTES AND PREFERENCE LEVELS) ASSOCIATED WITH PROFILE
272
PROVIDE OPPORTUNITY FOR SETTING NON-PROGRAM SETTINGS ASSOCIATED WITH PROFILE
274
PROVIDE OPPORTUNITY TO ACTIVATE PROFILE
276
OPERATE USER TELEVISION EQUIPMENT AND PROGRAM GUIDE USING NON-PROGRAM SETTINGS ASSOCIATED WITH PROFILE
278
PROVIDE ACCESS TO E-MAIL OR OTHER MESSAGING SERVICE BASED ON INFORMATION ON WHICH PROFILE IS ACTIVE
280

FIG. 32

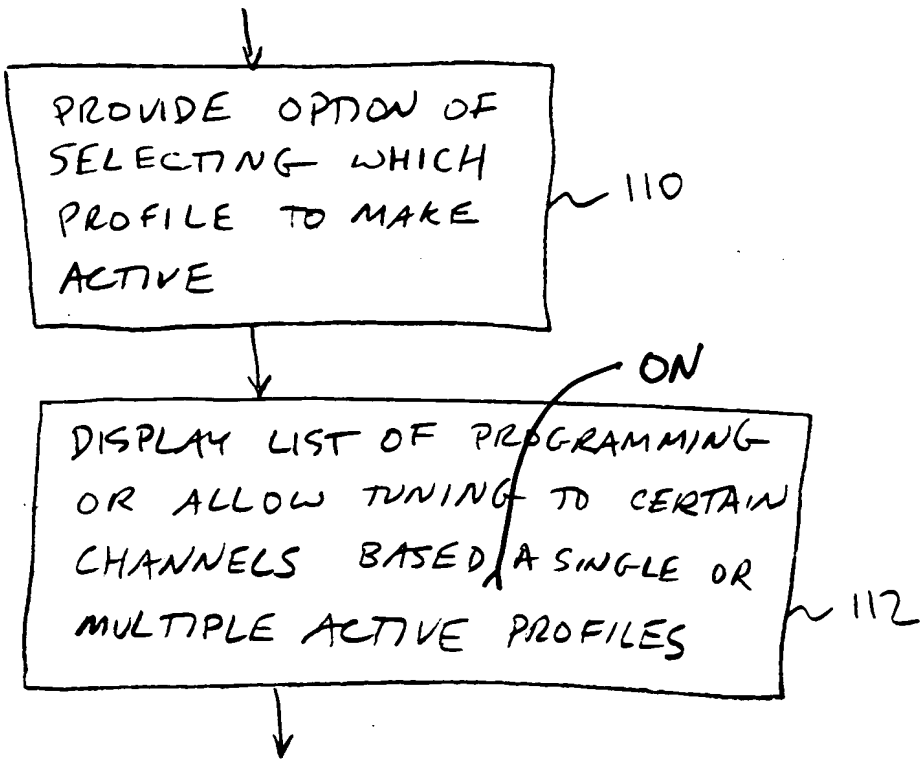

PROVIDE OPTION OF SELECTING WHICH PROFILE TO MAKE ACTIVE
110
ON
DISPLAY LIST OF PROGRAMMING OR ALLOW TUNING TO CERTAIN CHANNELS BASED A SINGLE OR MULTIPLE ACTIVE PROFILES
112

FIG. 10